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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,690	07/31/2001	Richard Chen	MR1957-571	9924

4586 7590 12/31/2003

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EXAMINER

FATAHI YAR, MAHMOUD

ART UNIT PAPER NUMBER

2674

DATE MAILED: 12/31/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/917,690

Applicant(s)

CHEN, RICHARD

Examiner

Mike Fatahiyar

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 and 8-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman(5,600,313) in view of Goff(5,659,308) and Hsu et al(6,320,519).

Freedman discloses a window keyboard comprising an application specific integrated circuit therein having multiple function key blocks(44, 66, 68 and 70) each block having a plurality of function keys, for example, delete, copy, print, save, help, cut etc. (columns 2, 5 and figure 7). Freedman substantially discloses all the features of the above claims except for the "each function key generating pseudo composite-key code" and the specifics of the composite-key code of some particular keys such as "undo or paste keys". While, Freedman, at column 5, lines 60-62, states that the icon/function keys are programmable and may be updated and he does not explicitly state that a particular function key represent a pseudo composite-key code. But it should be noted that a particular function key such as "paste", "print" or "copy" inherently represent a composite-key code in the environment of keyboard scan detection. However, Goff is cited to show explicitly that the concept of a function key(a single key) representing a pseudo composite-key code is old(column 1, lines 35-45; column 2, lines 7-11 and lines 52-67; column 3, lines 16-40). Therefore it would have been obvious to one of ordinary skill in the art to modify the system of Freedman with the noted teaching of Goff such

Art Unit: 2674

that each function key generates a pseudo composite-key code representing actuation of more than one key because both references are related to a keyboard utilizing function keys which are programmable and further because it is conventional in the keyboard art for the function keys to generate or represent a pseudo composite-key code. Hsu et al is cited to show that function keys are made of various types of composite-key codes of Ctrl, Alt and Shift keys and some other keys(columns 1, 2, 4 and 5). Thus, it would have been obvious to one of ordinary skill in the art to apply the noted teaching of Hsu et al to the modified system of Freedman such that to provide function keys such as cut key, paste key, copy key, mark key, redo key, bold key or any other similar function keys which are made of composite-key codes(i.e., combination of Alt, Ctrl or Shift key and some other key) because all the applied references are related to a keyboard having various types of functions keys for performing various functions without using a mouse or removing a user's hand from the keyboard for the activation of the noted function keys and further because Freedman at column 5, lines 60-62 shows her function keys are programmable which could be any function key that a user desires.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman, Goff and Hsu et al as applied to claim 1 above, and further in view of Chou(6,445,381).

Freedman, Goff and Hsu et al are discussed above. Chou is cited to show that the concept of switching a function key by a switch key and using a light emitting element to indicate the switching status is old(Column 2, lines 26-45). Therefore, it

Art Unit: 2674

would have been obvious to one ordinary skill in the art to apply the noted teachings of Chou to the modified keyboard of Freedman such that to switch function keys related to a office block by a switching key which uses a light emitting element to indicate the switching status because all the applied references are related to keyboards utilizing function keys.

4. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tsai is made of record to show various types of keyboards having function keys made of composite codes for performing various functions without using of a mouse or removing a user's hand from the keyboard for the activation of the related functions.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Mike Fatahiyar** whose telephone number is **(703) 305-6911**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Art Unit: 2674

Washington, D.C. 20231

or faxed to:


(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

MF
M. Fatahiyar

December 28, 2003


RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600